

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-12(canceled).

13(new). A method for manufacturing semiconductor devices in a substrate process apparatus, comprising the steps of:

(a) providing a product substrate carrier accommodating therein a maximum M number of product substrates to a carrier stage;

(b) charging in a boat the product substrates accommodated in the product substrate carrier;

(c) loading the product substrates charged in the boat into a process tube; and

(d) performing a batch process to the product substrates loaded in the process tube,

wherein the number of the product substrates processed in the process tube at one time is set to be less than or equal to M and all the product substrates contained in the product substrate carrier are processed at a same time.

14(new). The method of claim 13, wherein the M number is 25 or less.

15(new). The method of claim 13, wherein the product substrate carrier has a door, and the method further comprising, between the steps (a) and (b), the step of (a1) opening the door of the product substrate carrier.

16(new). The method of claim 15, further comprising, between the steps (a) and (a1), the step of (a2) transferring the product substrate carrier from the carrier stage to a loading port where the door is opened.

17(new). The method of claim 13, further comprising, before the step (c), the step of (e) charging dummy substrates in the boat, and wherein the dummy substrates are loaded into the process tube as well at the step (c).

18(new). The method of claim 17, wherein the step (e) includes the steps of (e1) providing a dummy substrate carrier accommodating therein the dummy substrates to the carrier stage and (e2) charging in the boat the dummy substrates accommodated in the dummy substrate carrier.

19(new). The method of claim 18, wherein the dummy substrate carrier has a door, and the method further comprising, between the steps (e1) and (e2), the steps of (e3) opening the door of the dummy substrate carrier.

20(new). The method of claim 18, wherein the dummy substrate carrier has a door, and the method further comprising, between the steps of (e1) and (e2), the steps of (e4) transferring the dummy substrate carrier from the carrier stage to a loading port where the door is opened and (e3) opening the door of the dummy substrate carrier.

21(new). The method of claim 13, wherein, the product substrate carrier at the step(a) is provided from another substrate process apparatus.

22(new). A method for manufacturing semiconductor devices, comprising the steps of:

(f) providing a product substrate carrier to a first substrate process apparatus from a second substrate process apparatus, the product substrate carrier accommodating therein a maximum M number of product substrates;

(g) charging the product substrates accommodated in the provided product substrate carrier in a process tube of the first substrate process apparatus;

(h) performing a batch process to the product substrates charged in the process tube,

wherein the number of the product substrates processed in the process tube at one time is set to be less than or equal to M and all the product substrates contained in the product substrate carrier are processed at a same time.

23(new). The method of claim 22, wherein the M number is 25 or less.

24(new). The method of claim 22, wherein the product substrate carrier has a door and the method further comprising, between the step (f) and the step (g), the step of (f1) opening the door of the product substrate carrier.

25(new). The method of claim 24, further comprising, between the steps (f) and (f1), the steps of (f2) placing the product substrate carrier to a carrier stage and (f3) transferring the product substrate carrier from the carrier stage to a loading port where the door is opened.

26(new). The method of claim 22, further comprising (g1) charging dummy substrates in the process tube as well at the step (g).

27(new). The method of claim 26, further comprising, between the steps (f) and (g1), the steps of (f2) providing a dummy substrate carrier accommodating therein the dummy substrates to the first substrate process apparatus.

28(new). The method of claim 27, wherein the dummy substrate carrier has a door, and the method further comprising, between the steps (f1) and (g1), the step of (f3) opening the door of the dummy substrate carrier.

29(new). The method of claim 27, wherein the dummy substrate carrier has a door, and the method further comprising, between the steps (f1) and (g1), the steps of (f4) placing the dummy substrate carrier to a carrier stage of the first substrate process apparatus, (f5) transferring the dummy substrate carrier from the carrier stage to a

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loading port where the door is opened, and (f3) opening the door of the dummy substrate carrier.